

crystal from a focal conic texture to a light reflecting twisted planar texture, and an electric field pulse of a magnitude effective to transform at least a portion of said liquid crystal from a light reflecting twisted planar texture to a focal conic texture.

19. The cell as claimed in Claim 18 wherein the pitch length of the chiral nematic liquid crystal is in a range of from about .25 to about 1.5 microns.

20. The cell as claimed in Claim 18 wherein the pitch length of the chiral nematic liquid crystal is in a range of from about .45 to about .8 microns.

21. The cell as claimed in Claim 18 wherein the liquid crystal exhibits a stable light reflecting twisted planar structure following sudden removal of an electric field pulse effective to homeotropically align the liquid crystal, and a stable light scattering focal conic texture following removal of an electric field pulse below that which will homeotropically align the liquid crystal.

22. A method of addressing a light modulating cell comprising a chiral nematic liquid crystalline light modulating material having positive dielectric anisotropy and a pitch length effective to reflect light in the visible spectrum, cell wall structure cooperating with said liquid crystal to form focal conic and twisted planar textures that are stable in the absence of a field, and means for addressing said liquid crystal material, said method comprising selectively applying electric field pulses to said material of a magnitude effective to transform at least a portion of said liquid crystal from a focal conic texture to a light reflecting twisted planar texture, or to transform at least a portion of said liquid crystal from a light reflecting twisted planar texture to a focal conic texture.

23. The method according to claim 22 comprising selectively switching said material to a light reflecting twisted planar texture following the sudden removal of an electric field pulse of a magnitude sufficient to homeotropically align the liquid crystal, and a light scattering focal conic texture following removal

of an electric field pulse of a magnitude below that which will homeotropically align the liquid crystal.

24. ⁵ ~~22~~ The method according to claim ³ ~~22~~ comprising applying square A.C. voltage pulses.

25. ⁶ A method of selectively adjusting the intensity of reflection of colored light from a chiral nematic liquid crystalline light modulating material having positive dielectric anisotropy and a pitch length effective to reflect light in the visible spectrum, and cell wall structure cooperating with said liquid crystal to form focal conic and twisted planar textures that are stable in the absence of a field, between a maximum and a minimum intensity, the method comprising subjecting said material to an electric field pulse of sufficient duration and voltage to cause a first proportion of said chiral nematic material to exhibit a twisted planar texture in the absence of a field and a second proportion of said chiral nematic material to exhibit a focal conic texture in the absence of a field, whereby said material will continuously reflect a selected intensity between said maximum and minimum that is proportional to the amount of said material in said focal conic and twisted planar textures in the absence of a field.

26. ⁷ ^{polymer-free} A light modulating device comprising cell wall structure and chiral nematic liquid crystalline light modulating material having positive dielectric anisotropy and a pitch length effective to reflect light in the visible spectrum, said cell wall structure and liquid crystal cooperating to form focal conic and twisted planar textures that are stable in the absence of a field, wherein a first proportion of said material exhibits a twisted planar texture in the absence of a field and second proportion of said material exhibits a focal conic texture in the absence of a field, and means for establishing an electrical field through said material, said means adapted to provide an electric field pulse of sufficient amplitude and duration to change the proportion of said material in said twisted planar and focal conic textures, whereby the intensity of light reflected may be selectively adjusted.